

ENERGY TRENDS

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Final Energy Consumption up two per cent in 1977

Total Energy

Lower final consumption in 4th quarter

Total inland energy consumption measured on a primary fuel input basis during the period December to February was 1 million tons of coal equivalent or 1.1 per cent lower than in the comparable period a year earlier. Coal consumption in each month was below the level of a year ago and for the period as a whole fell by 7.6 per cent. Petroleum deliveries rose by 1.1 per cent and natural gas by 3.9 per cent while nuclear and hydro electricity supplies rose by 10.9 and 17.6 per cent respectively in providing an additional 0.6 million tons of coal equivalent.

Provisional figures of supply and use of fuels in terms of thermal content show that during the 4th quarter of 1977 indigenous production of fuels rose by an eighth compared with the 4th quarter of 1976 and of the total 17.7 billion therms produced, nearly one half was made up of petroleum and natural gas from the UK sector of the North Sea.

Final energy consumption on a heat supplied basis during the 4th quarter was 0.9 per cent lower overall than in the corresponding period a year earlier. Total consumption in the iron and steel industry fell sharply by over 17 per cent with coke consumption lower by nearly a quarter and electricity by a fifth. Consumption by other industries was marginally lower than a year ago, the decline being shared by all principal fuels except natural gas, consumption of which rose by 1.2 per cent.

Total consumption by domestic consumers was 0.3 per cent lower than in the comparable period of 1976 with only solid fuels rising above the levels of the previous year, a trend which was apparent during the last three quarters of 1977. The fourth quarter was markedly warmer than a year ago and reflecting this, electricity consumption fell by 6 per cent and that of petroleum by over 9 per cent. Also, in a check to the rising trend of recent years, consumption of natural gas declined by 0.7 per cent.

Taking 1977 as a whole, provisional figures show that final consumption rose in total by 2.1 per cent. Although each of the main fuels shared in the increase, the biggest rise was in gas consumption which increased by 5.4 per cent. Coal, electricity and petroleum were each higher by 2.2 per cent but other solid fuels, mainly coke, fell by 8.4 per cent wholly as a result of the low level of activity in the steel industry.

Coal

Consumption low

Total coal production in the 1st quarter of 1978 was 1.3 per cent higher than in the corresponding period of 1977. Deep-mined coal output declined by 0.7 per cent but opencast production continued to increase and was 15 per cent higher than a year earlier.

Total inland consumption of coal during the quarter was 33.1 million tons, 2.4 millions tons less than a year ago, most of the decline being attributable to lower consumption for electricity generation and for carbonising at coke ovens. As a result of higher production and declining consumption, total distributed and undistributed coal stocks rose in March by 0.8 million tons and were 1.8 million tons higher at the end of the month than at the same time a year ago.

Compared with last year productivity, measured in output per man-shift, improved in March by over 1 cwt to 46.86 cwt.

Gas

Imports from Frigg boost supplies

Total natural gas supplied into the system during the 1st quarter of 1978 was 8.4 per cent higher than in the same period last year. Most of the in-

crease consisted of gas from the Norwegian sector of the Frigg field, which is imported through a common pipeline with gas from the United Kingdom sector of the same field.

Total gas sales in 1977 increased by 4.2 per cent to 14.6 billion therms compared with a growth of 6.8 per cent in the previous year. Although domestic consumption accounted for over two-thirds of the increase, sales to all sectors except power stations were higher than in 1977.

Electricity

Cold February stimulates demand

Total electricity supplied during the three month period from December to February was 1.8 per cent lower than in the corresponding period a year ago. In contrast to the first two months of the period, February was very cold and electricity supplied in that month was 6.4 per cent higher than in February 1977, the average weekly quantity of 6.07 terawatt hours of electricity being the highest amount yet supplied by the industry.

Total sales of electricity during 1977 were 2.2 per cent higher than in 1976. Sales to industry, other than iron and steel, rose by 3.2 per cent and to the commercial and public administration sector by 5.1 per cent. Domestic sales rose by 0.9 per cent, but the increase was confined to the two middle quarters of the year and sales fell away sharply by over 6 per cent in the final quarter.

The final table on the back page of this issue of "Energy Trends" gives details of electricity generated outside the public supply system, which accounts for about a fifth of total requirements by manufacturing industry. Total generation during 1977 was 3.7 per cent lower than in the previous year, with all industries except engineering, food, coal mining and transport undertakings providing smaller quantities of electricity from their own capacity.

Petroleum

Road transport fuels in demand

Indigenous production of crude oil in the period December to February was 10.9 million tonnes, 4.3 million tonnes higher than in the same period a year earlier. Net arrivals of overseas crude declined by a corresponding amount to a level of 14 million tonnes.

Total inland deliveries of petroleum products during the period were 0.6 per cent higher than a year ago. Fuel oil deliveries fell by 2.2 per cent and domestic premium and standard grade burning oils by 7.2 and 3.4 per cent respectively, although in each case deliveries in the cold last month of the period were higher than a year earlier. Deliveries of motor spirit rose by 4.6 per cent and derv fuel by 3.7 per cent during the period as a whole, although February deliveries of each were lower than in 1977 as a result of the work-to-rule by tanker drivers.

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Figures for the latest periods and the corresponding averages or totals are provisional and are liable to subsequent revision.

The figures have not been adjusted for temperature or seasonal factors except where noted in Table 1. Monthly figures relate to four week periods except where otherwise indicated.

Percentage changes relate to the corresponding period a year ago. These comparisons can be affected by calendar differences, especially during periods of rapid change. They are calculated from unrounded figures but are shown only as (+) or (–) when the percentage change is very large. All figures relate to the United Kingdom unless otherwise indicated.

Explanatory notes on the definitions and concepts used in the tables and on the relationship between some of the main series are given in the Supplement to the March 1976 issue of *Energy Trends* and on the first page of the August 1976 issue. Extra copies of that Supplement may be obtained from the Department of Energy.

Symbols used in the tables

.. not available.
 – nil or less than half the final digit shown.
 * five-week period.
 p provisional.

Total energy

TABLE 1. Inland energy consumption: primary fuel input basis

	Total	Coal ¹	Petroleum ²	Natural ³ gas	Nuclear electricity	Hydro-electricity	Total	Coal ¹	Petroleum ²	Natural ³ gas	Nuclear electricity	Hydro-electricity
	<i>Million tons of coal or coal equivalent</i>						<i>Million metric tonnes of oil or oil equivalent</i>					
1972	332.7	120.5	159.6	40.3	10.5	1.8	198.8	72.0	95.4	24.0	6.3	1.1
1973	347.9	130.8	161.6	43.6	9.9	2.0	207.9	78.2	96.6	26.0	5.9	1.2
1974	332.2	116.0	150.1	52.1	11.9	2.1	198.6	69.3	89.7	31.2	7.1	1.3
1975	319.7	118.1	134.4	54.5	10.8	1.9	191.1	70.6	80.3	32.6	6.4	1.2
1976	324.7	120.1	132.1	57.9	12.7	1.9	194.0	71.8	78.9	34.6	7.6	1.1
1977 p	332.1	120.8	133.9	61.3	14.1	2.0	198.5	72.2	80.0	36.7	8.4	1.2
Per cent change	+2.3	+0.6	+1.4	+6.0	+11.0	+6.3	+2.3	+0.6	+1.4	+6.0	+11.0	+6.3
1976 Dec*	38.3	14.3	15.3	7.2	1.3	0.2	22.9	8.6	9.1	4.3	0.8	0.1
1977 Jan	30.9	11.0	11.5	7.2	1.1	0.1	18.4	6.5	6.8	4.3	0.7	0.1
Feb	30.7	11.6	11.6	6.1	1.3	0.1	18.4	6.9	7.0	3.7	0.7	0.1
Total	99.9	36.9	38.4	20.5	3.7	0.4	59.7	22.0	22.9	12.3	2.2	0.3
1977 Dec*	37.3	13.3	15.5	6.8	1.5	0.2	22.3	8.0	9.2	4.1	0.9	0.1
1978 Jan	30.3	9.7	11.5	7.6	1.3	0.2	18.1	5.8	6.9	4.5	0.8	0.1
Feb p	31.3	11.1	11.8	6.9	1.3	0.2	18.7	6.6	7.1	4.1	0.8	0.1
Total	98.9	34.1	38.8	21.3	4.1	0.6	59.1	20.4	23.2	12.7	2.5	0.3
Per cent change	–1.1	–7.6	+1.1	+3.9	+10.9	+17.6	–1.1	–7.6	+1.1	+3.9	+10.9	+17.6
Seasonally adjusted and temperature corrected ⁴ (annual rates).												
1976 Dec*	338.3	130.4	126.1	67.8	12.7	1.3	202.2	77.9	75.4	40.5	7.6	0.8
1977 Jan	332.6	124.3	130.1	64.2	12.9	1.1	198.8	74.3	77.8	38.4	7.7	0.6
Feb	335.7	128.9	133.0	58.7	13.7	1.4	200.6	77.0	79.5	35.1	8.2	0.8
Average	335.7	128.0	129.4	63.9	13.1	1.3	200.7	76.5	77.4	38.2	7.8	0.8
1977 Dec*	339.4	122.4	139.6	60.9	14.6	1.9	202.8	73.2	83.4	36.4	8.7	1.1
1978 Jan	329.9	113.5	131.9	68.2	14.9	1.4	197.1	67.8	78.8	40.8	8.9	0.8
Feb p	327.9	115.4	130.0	66.2	14.8	1.5	195.9	68.9	77.7	39.5	8.9	0.9
Average	332.9	117.5	134.3	64.8	14.7	1.6	199.0	70.2	80.3	38.7	8.8	1.0
Per cent change	–0.8	–8.2	+3.7	+1.4	+12.6	+29.0	–0.8	–8.2	+3.7	+1.4	+12.6	+29.0

1. Consumption by fuel producers plus colliery disposals to final users, plus (for annual figures only) net foreign trade and stock change in other solid fuels.
2. Refinery throughput of crude oil, plus net foreign trade and stock change in petroleum products, less deliveries of non-energy products.
3. Excluding gas flared, or reinjected.
4. Only coal and petroleum are temperature corrected.

Energy: Total inland consumption (primary fuel input basis)¹

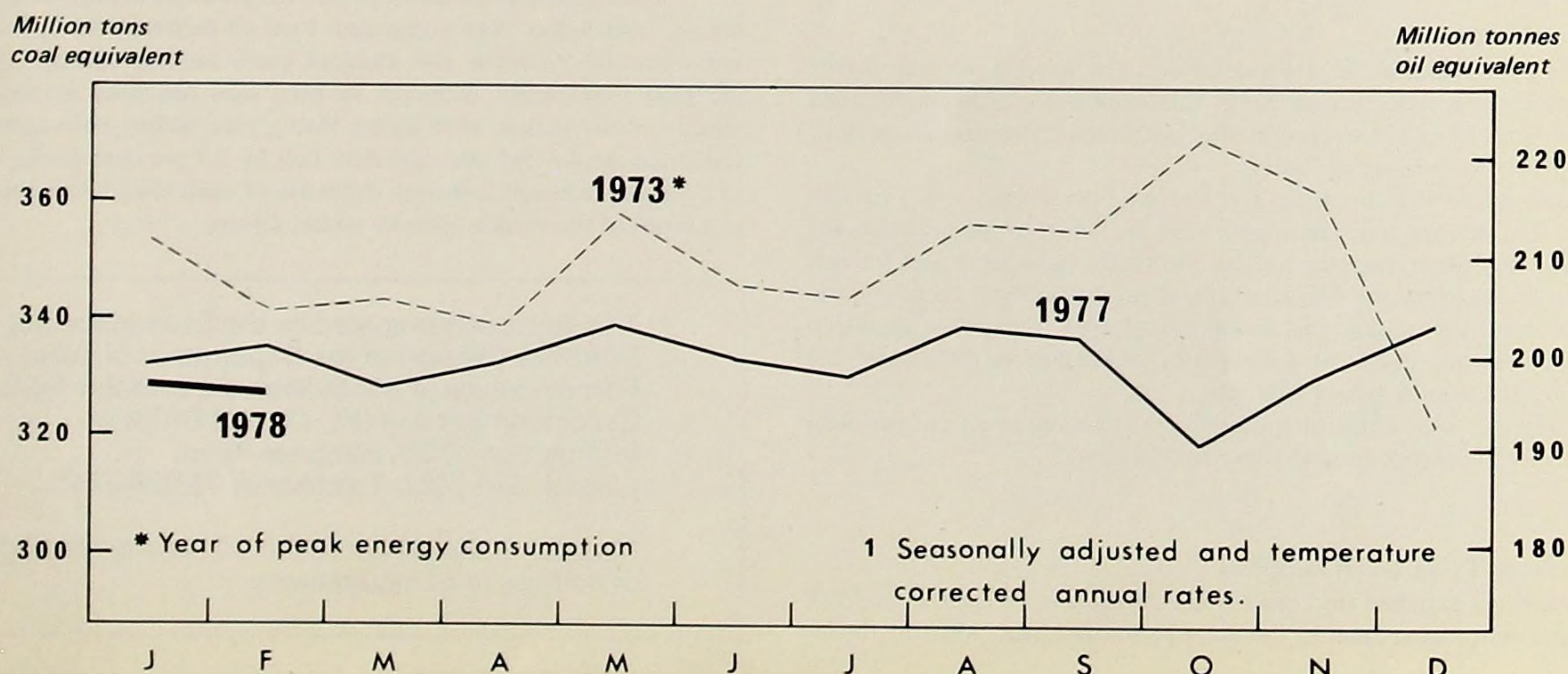


TABLE 2. Supply and use of fuels

Million therms

				1975	1976				1977 p				
	1976	1977 p	Per cent change	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	1st quarter	2nd quarter	3rd quarter	4th quarter	Per cent change
PRIMARY FUELS AND EQUIVALENTS:													
Production of primary fuels													
Coal	30,166	29,737	-1.4	8,442	8,006	7,635	6,378	8,147	7,568	7,538	6,463	8,168	+0.3
Petroleum ²	5,206	16,326	(+)	415	574	1,020	1,335	2,277	3,295	4,209	4,341	4,481	(+)
Natural gas ³	14,379	14,976	+4.2	4,214	4,727	2,962	2,173	4,517	4,910	3,450	2,483	4,133	-8.5
Primary electricity	3,411	3,761	+10.3	841	926	786	770	929	1,070	877	852	962	+3.6
Total	53,162	64,800	+21.9	13,912	14,233	12,403	10,656	15,870	16,843	16,074	14,139	17,744	+11.8
Arrivals. Petroleum ⁴	43,174	35,723	-17.3	11,117	10,992	10,949	10,160	11,073	9,613	9,114	8,251	8,745	-21.0
Other	1,183	1,353	+14.4	430	351	336	270	226	193	197	366	597	(+)
Shipments	9,176	13,827	+50.7	1,882	1,745	2,068	2,507	2,856	2,973	3,649	3,885	3,320	+16.2
Bunkers	1,468	1,163	-20.8	344	371	346	381	370	316	303	293	251	-32.2
Stock change ⁵													
Solid fuels	-634	+231	..	-703	+312	-820	-388	+262	+1,247	-386	-194	-436	..
Crude petroleum	-378	+459	..	+78	+354	-196	-25	-511	+159	-231	+252	+279	..
Petroleum products	+240	+423	..	+707	+648	-431	-367	+390	+560	-222	-314	+399	..
Non-energy use	4,448	4,199	-5.6	1,135	1,138	1,111	1,159	1,040	929	1,116	1,119	1,035	-0.5
Statistical difference ⁶	+54	-170	..	-12	+58	-23	-2	+21	-260	+173	-55	-28	..
Total primary ⁷ energy input	81,709	83,630	+2.4	22,168	23,694	18,693	16,257	23,065	24,137	19,651	17,148	22,694	-1.6
Conversion losses etc. ⁸	24,380	25,098	+2.9	6,905	6,913	5,596	4,905	6,966	7,262	5,846	5,245	6,745	-3.2
USER FINAL CONSUMPTION BY													
Iron and steel industry													
Coal	66	65	-1.5	19	23	14	9	20	23	15	9	18	-10.0
Other solid fuel ⁹	2,723	2,363	-13.2	571	631	719	670	703	655	584	593	531	-24.5
Other coal-derived fuels ¹⁰	401	367	-8.5	92	98	109	97	97	95	90	97	85	-12.4
Gas ¹¹	438	485	+10.7	100	108	112	99	119	128	125	113	119	-
Electricity	395	364	-7.8	91	100	96	90	109	102	94	81	87	-20.2
Petroleum	1,279	1,203	-5.9	330	354	306	273	346	351	285	256	311	-10.1
Total	5,302	4,847	-8.6	1,203	1,314	1,356	1,238	1,394	1,354	1,193	1,149	1,151	-17.4
Other industries													
Coal	2,277	2,294	+0.7	657	547	564	470	696	617	530	483	664	-4.6
Other solid fuel ⁹	126	160	+27.0	30	38	24	27	37	39	39	36	46	+24.3
Other coal-derived fuels ¹⁰	76	57	-25.0	16	13	23	25	15	17	17	14	9	-40.0
Gas ¹¹	5,241	5,459	+4.2	1,308	1,456	1,236	1,083	1,466	1,431	1,373	1,171	1,484	+1.2
Electricity	2,364	2,444	+3.4	592	617	563	546	638	646	603	572	623	-2.4
Petroleum	7,441	7,555	+1.5	2,224	2,255	1,696	1,400	2,090	2,254	1,783	1,437	2,081	-0.4
Total	17,525	17,969	+2.5	4,827	4,926	4,106	3,551	4,942	5,004	4,345	3,713	4,907	-0.7
Transport sector													
Coal and other solid fuel	21	19	-9.5	7	7	4	2	8	6	4	2	7	-12.5
Electricity	98	102	+4.1	25	26	24	22	26	27	26	24	25	-3.8
Petroleum	12,597	12,933	+2.7	3,043	2,889	3,198	3,333	3,177	2,988	3,218	3,421	3,306	+4.1
Total	12,716	13,054	+2.7	3,075	2,922	3,226	3,357	3,211	3,021	3,248	3,447	3,338	+4.0
Domestic sector													
Coal	3,143	3,235	+2.9	766	932	765	634	812	851	774	704	906	+11.6
Other solid fuel ⁹	869	860	-1.0	201	277	196	208	188	231	208	228	193	+2.7
Gas ¹¹	6,194	6,587	+6.3	1,828	2,403	1,055	686	2,050	2,412	1,370	770	2,035	-0.7
Electricity	2,905	2,932	+0.9	838	993	585	464	863	972	638	511	811	-6.0
Petroleum	1,435	1,435	-	461	519	268	176	472	514	291	201	429	-9.1
Total	14,546	15,049	+3.5	4,094	5,124	2,869	2,168	4,385	4,980	3,281	2,414	4,374	-0.3
Other final users ¹²													
Coal	516	543	+5.2	160	172	113	73	158	166	118	82	177	+12.0
Other solid fuel ⁹	166	175	+5.4	43	51	44	37	34	52	39	48	36	+5.9
Gas ¹¹	1,521	1,587	+4.3	394	571	317	169	464	561	380	180	466	+0.4
Electricity	1,596	1,676	+5.0	437	478	345	308	465	497	381	339	459	-1.3
Petroleum	3,441	3,632	+5.6	1,028	1,223	721	451	1,046	1,240	820	531	1,041	-0.5
Total	7,240	7,613	+5.2	2,062	2,495	1,540	1,038	2,167	2,516	1,738	1,180	2,179	+0.6
Total final users	57,329	58,532	+2.1	15,261	16,781	13,097	11,352	16,099	16,875	18,805	11,898	15,949	-0.9
FUEL FINAL CONSUMPTION BY													
Coal	6,022	6,156	+2.2	1,609	1,681	1,460	1,188	1,693	1,663	1,441	1,280	1,772	+4.7
Other solid fuel ⁹	3,885	3,558	-8.4	845	997	983	942	963	977	870	905	806	-16.3
Other coal-derived fuels ¹⁰	477	424	-11.1	108	111	132	122	112	112	107	111	94	-16.1
Gas ¹¹	13,394	14,118	+5.4	3,630	4,538	2,720	2,037	4,099	4,532	3,248	2,234	4,104	+0.1
Electricity	7,358	7,518	+2.2	1,983	2,214	1,613	1,430	2,101	2,244	1,742	1,527	2,005	-4.6
Petroleum	26,193	26,758	+2.2	7,086	7,240	6,189	5,633	7,131	7,347	6,397	5,846	7,168	+0.5
Total all fuels	57,329	58,532	+2.1	15,261	16,781	13,097	11,352	16,099	16,875	18,805	11,903	15,949	-0.9

1. Per cent change on the corresponding period of the previous year. 2. Crude petroleum and natural gas liquids. 3. Excluding gas flared or reinjected. 4. Crude petroleum, process oils and petroleum products. 5. Stock fall (+) stock rise (-). 6. Supply greater than recorded demand (-). 7. Thermal equivalent of total inland energy consumption in Table 1. A more detailed analysis of the annual figures is shown in the Digest of United Kingdom Energy Statistics 1977 Tables 8 and 10. 8. Losses in conversion and distribution and used by fuel industries. 9. Coke and other manufactured solid fuels. 10. Coke oven gas, creosote/pitch mixtures and other liquid fuels derived from coal. 11. Natural gas supplied direct, and town gas. 12. Mainly public administration, commerce and agriculture.

Coal

TABLE 3. Supply

Thousand tons

	Net inland supply	Production			Net imports	Imports ²	Exports ²	Tonnage lost (deep-mined) ³	
		Total ¹	Deep-mined	Opencast				Recognised holidays and rest days	Disputes
1972	123,125	119,927	107,390	10,261	+3,198	4,919	1,721	10,244	22,400
1973	128,904	129,906	118,140	9,964	-1,002	1,649	2,651	10,313	5,569
1974	110,362	108,707	98,413	9,085	+1,655	3,491	1,836	10,352	15,996
1975	129,505	126,650	115,557	10,249	+2,855	5,003	2,148	12,105	347
1976	123,224	121,845	108,523	11,755	+1,379	2,792	1,413	12,150	1,140
1977 p	120,687	120,221	105,432	13,336	+466	2,376	1,910	12,260	801
Per cent change	-2.1	-1.3	-2.8	+13.4	-66.2	-14.9	+35.2	+0.9	-29.7
1977 Jan	7,472	7,285	6,638	608	+187	277	90	2,619	79
Feb	10,314	10,407	9,453	856	-93	106	199	-	51
Mar*	12,938	13,106	11,900	1,146	-168	48	216	-	71
Total	30,724	30,798	27,991	2,610	-74	431	505	2,619	201
1978 Jan	7,439	7,286	6,550	687	+153	308	155	2,573	53
Feb	10,604	10,599	9,424	978	+5	164	159	-	84
Mar* p	13,329	13,324	11,813	1,339	+5	206	201	160	90
Total	31,372	31,209	27,787	3,004	+163	678	515	2,733	227
Per cent change	+2.1	+1.3	-0.7	+15.1	(+)	+57.3	+2.0	+4.3	+12.9

1. Includes an estimate for slurry, etc., recovered and disposed of otherwise than by the National Coal Board. 2. As recorded in the "Overseas Trade Statistics of the United Kingdom". 3. NCB mines only.

TABLE 4. Inland consumption of coal

Thousand tons

	Total inland consumption	Fuel producers					Final users ¹			
		Primary	Secondary				Colliery disposals			
		Collieries	Power stations ²	Coke ovens	Gas works	Other ³ conversion industries	Industry ⁴	Domestic ⁵		Other ⁸
								House coal ⁶	Other ⁷	
1972	120,945	1,383	65,611	20,152	566	4,475	11,478	12,569	1,756	2,955
1973	131,270	1,359	75,628	21,543	504	3,550	11,890	12,466	1,790	2,540
1974	116,025	1,236	65,967	18,169	105	3,728	10,902	11,793	1,660	2,465
1975	120,286	1,218	73,391	18,783	9	3,999	9,532	9,759	1,677	1,918
1976	121,651	1,114	76,589	19,095	8	3,351	8,828	9,301	1,352	2,013
1977 p	122,020	1,106	78,694	17,131	7	3,116	8,890	9,483	1,479	2,114
Per cent change	+0.3	-0.7	+2.7	-10.3	-12.5	-7.0	+0.7	+2.0	+9.4	+5.0
1977 Jan	10,943	74	7,711	1,454	1	213	602	641	75	172
Feb	11,589	98	7,724	1,456	1	227	826	905	119	233
Mar*	13,015	126	8,406	1,829	1	280	983	1,005	145	240
Total	35,547	298	23,841	4,739	3	720	2,411	2,551	339	645
1978 Jan	9,675	71	6,875	1,121	1	239	579	552	94	143
Feb	11,105	100	7,693	1,148	1	244	868	706	114	231
Mar* p	12,360	125	8,178	1,423	-	288	958	959	156	273
Total	33,140	296	22,746	3,692	2	771	2,405	2,217	364	647
Per cent change	-6.8	-0.7	-4.6	-22.1	-33.3	+7.1	-0.2	-13.1	+7.4	+0.3

1. Disposals by collieries and opencast sites. 2. Public supply and railway and transport power stations. 3. Low temperature carbonisation and patent fuel plants. 4. Prior to October 1973 the figures relate to actual consumption. 5. Prior to April 1973 the figures relate to merchants' disposals to the domestic market. 6. Including miners' coal. 7. Anthracite, dry steam coal and imported naturally smokeless fuels. 8. Mainly public administration and commerce.

TABLE 5. Stocks of coal¹ at end of period: Great Britain

Thousand tons

	Total	Distributed					Undistributed		
		Total distributed stocks	Power stations	Coke ovens	Gas works	Other	Total undistributed stocks	Collieries	Opencast sites and central stocking grounds
1972	29,979	19,045	16,791	1,890	50	314	10,934	7,558	3,376
1973	27,445	16,766	14,537	1,937	27	265	10,679	7,529	3,150
1974	21,462	15,577	13,414	1,822	3	338	5,885	3,946	1,939
1975	30,666	20,216	17,668	2,296	2	250	10,450	8,767	1,683
1976	35,592	22,102	19,288	2,642	2	170	10,490	9,148	1,342
1977 p	31,037	21,362	18,826	2,331	2	203	9,675	8,159	1,516
1977 Jan	29,147	18,984	16,463	2,355	3	163	10,163	8,919	1,244
Feb	27,821	18,180	15,644	2,365	2	169	9,641	8,568	1,073
Mar	27,458	18,102	15,586	2,319	2	195	9,356	8,299	1,057
1978 Jan	28,910	19,455	17,162	2,108	2	183	9,455	7,944	1,511
Feb	28,392	18,666	16,461	2,040	2	163	9,726	8,200	1,526
Mar p	29,240	19,153	17,106	1,845	2	200	10,087	8,518	1,569
Absolute change:									
In latest month	+848	+487	+645	-195	-	+37	+361	+318	+43
On a year ago	+1,782	+1,051	+1,520	-474	-	+5	+731	+219	+512

1. Excluding distributed stocks held in merchants' yards, etc., mainly for the domestic market, and stocks held by the industrial sector.

TABLE 6. Colliery manpower and productivity at NCB mines

	Wage earners on colliery books ¹		Recruitment	Wastage	Absence percentage ²			Average output per manshift ³	
	Total	Underground			Total	Voluntary	Involuntary	Overall	At the face
	Thousands		Number	Per cent					
1972	266	210	13,255	26,114	16.6	3.9	12.7	43.60	144.35
1973	245	193	17,402	37,961	18.0	4.1	13.9	45.00	150.00
1974	246	194	26,436	25,133	16.3	4.1	12.2	42.83	..
1975	245	194	21,347	22,451	16.2	4.0	12.2	44.92	155.85
1976	241	192	17,061	21,239	17.4	3.7	13.7	43.81	152.59
1977 p	239	189	29,361	31,647	17.6	3.9	13.7	42.91	152.91
1977 Jan	241	191	1,412	1,607	18.0	3.6	14.4	43.09	153.85
Feb	241	192	2,066	1,841	19.4	4.1	15.3	45.16	155.77
Mar*	242	192	3,386	2,364	19.7	4.3	15.4	45.80	158.77
1978 Jan	238	189	1,367	1,610	17.5	3.8	13.7	43.00	158.32
Feb	239	189	2,180	1,876	20.0	4.8	15.2	46.02	167.23
Mar* p	239	190	2,620	2,124	19.9	4.9	15.0	46.86	174.87

1. At end of period. 2. The definition was changed from 1973. 3. Excluding capital working and tip coal.

Gas

TABLE 7. Sources of supply and send-out by the public gas supply system

	Natural gas supply			Other fuel used		Gas sent out		
	Total into system	Source ¹		Coal	Oil ³	Total	Town gas	Natural ⁴ gas for direct supply
		Indigenous	Imported ²					
	Million therms			Thousand tons		Million therms		
1972	10,071	9,775	296	559	2,170	10,614	3,415	7,199
1973	10,916	10,639	277	503	2,286	11,620	2,434	9,186
1974	13,102	12,861	241	105	1,256	13,451	1,598	11,853
1975	13,692	13,367	325	9	579	13,822	752	13,070
1976	14,420	14,030	390	8	241	14,445	226	14,219
1977 p	15,373	14,734	639	7	163	15,323	75	15,248
Per cent change	+6.6	+5.0	+63.8	-5.3	-32.4	+6.1	-66.8	+7.2
1977 Jan	1,647	1,623	24	1	28	1,644	12	1,632
Feb	1,550	1,526	24	1	18	1,553	11	1,542
Mar*	1,779	1,756	23	1	15	1,783	11	1,772
Total	4,976	4,905	71	3	61	4,980	34	4,946
1978 Jan	1,740	1,589	151	—	31	1,746	4	1,742
Feb	1,785	1,646	139	1	50	1,798	4	1,794
Mar* p	1,871	1,733	138	1	21	1,871	4	1,867
Total	5,396	4,968	428	2	102	5,415	12	5,403
Per cent change	+8.4	+1.3	(+)	-25.9	+67.2	+8.7	-64.7	+9.2

1. Figures differ from production and imports respectively because of stock changes and small quantities not entering the public supply system.

2. Includes imports from the Norwegian sector of the Frigg gasfield. 3. Mainly naphtha (LDF), liquefied petroleum gases (LPG) and refinery gases.

4. Includes Substitute Natural Gas (SNG).

TABLE 8. Sales of gas by the public supply system

Million therms

	Total	Power stations ¹	Iron and steel industry	Other industries	Domestic	Other ²
1972	9,787	630	437	3,215	4,509	996
1973	10,729	285	396	4,150	4,815	1,083
1974	12,668	985	395	4,635	5,384	1,269
1975	13,112	858	371	4,645	5,891	1,347
1976	13,997	662	438	5,182	6,194	1,521
1977	14,579	519	485	5,398	6,590	1,587
Per cent change	+4.2	-21.6	+10.7	+4.2	+6.4	+4.3
1975 4th quarter	3,857	243	100	1,292	1,828	394
1976 1st quarter	4,765	240	108	1,443	2,403	571
2nd quarter	2,865	160	112	1,221	1,055	317
3rd quarter	2,149	129	99	1,066	686	169
4th quarter	4,218	133	119	1,452	2,050	464
1977 1st quarter	4,634	118	128	1,414	2,413	561
2nd quarter	3,317	82	125	1,359	1,371	380
3rd quarter	2,372	153	113	1,155	771	180
4th quarter	4,256	166	119	1,470	2,035	466
Per cent change	+0.9	+24.8	—	+1.2	-0.7	+0.4

1. Public supply and transport power stations. 2. Public administration and commerce.

Electricity

TABLE 9. Fuel used and electricity generated by the public supply system

	Fuel used						Electricity generated			Own ⁵ use	Electricity supplied	Total ⁶ electricity available
	Total ¹	Coal ²	Oil ^{2 3}	Natural gas	Nuclear electricity	Hydro electricity	Total ⁴	By steam plant				
								Nuclear	Other			
	Million tons of coal or coal equivalent						TWh					
United Kingdom												
1972	109.37	65.25	31.25	2.48	8.89	1.47	242.75	25.30	212.20	18.05	224.70	229.23
1973	114.68	75.57	28.04	1.13	8.22	1.66	258.80	23.66	229.89	18.43	240.37	244.76
1974	110.49	65.97	28.51	3.86	10.28	1.81	250.47	29.40	215.70	18.07	232.40	236.68
1975	108.97	73.39	21.14	3.37	9.29	1.64	251.26	26.52	219.69	18.02	233.24	237.30
1976	108.76	76.59	16.78	2.51	11.22	1.61	254.92	32.42	217.50	19.16	235.76	239.47
1977 p	112.18	78.30	17.70	1.73	12.68	1.70	262.04	36.42	220.06	19.56	242.48	246.02
Per cent change	+ 3.1	+ 2.2	+ 5.5	− 31.1	+ 13.0	+ 5.6	+ 2.8	+ 12.3	+ 1.2	+ 2.1	+ 2.9	+ 2.7
1976 Dec*	13.40	9.63	2.23	0.16	1.22	0.15	31.33	3.51	27.27	2.28	29.05	29.44
1977 Jan	11.09	7.94	1.88	0.13	1.00	0.13	25.78	2.90	22.40	1.84	23.94	24.24
Feb	10.51	7.64	1.44	0.13	1.15	0.14	24.62	3.29	20.88	1.81	22.81	23.06
Total	35.00	25.21	5.55	0.42	3.37	0.42	81.73	9.70	70.55	5.93	75.80	76.74
1977 Dec*	12.37	8.41	2.13	0.24	1.38	0.20	28.84	3.95	24.29	2.08	26.76	27.13
1978 Jan	10.75	7.40	1.80	0.23	1.14	0.17	25.22	3.25	21.46	1.78	23.44	23.78
Feb p	11.07	7.62	1.96	0.15	1.19	0.14	26.09	3.39	22.28	1.82	24.27	24.64
Total	34.19	23.43	5.89	0.62	3.71	0.51	80.15	10.59	68.03	5.68	74.47	75.55
Per cent change	− 2.3	− 7.1	+ 6.1	+ 47.6	+ 10.1	+ 21.4	− 1.9	+ 9.2	− 3.6	− 4.2	− 1.8	− 1.6
England and Wales												
1972	95.63	58.21	26.74	2.48	8.08	0.09	212.91	23.01	187.95	15.71	197.20	200.24
1973	99.43	67.14	23.56	1.13	7.45	0.09	225.24	21.42	202.18	16.24	209.00	212.72
1974	96.09	58.63	24.00	3.86	9.43	0.12	218.85	26.93	190.43	15.89	202.96	205.55
1975	94.62	64.67	17.95	3.37	8.40	0.09	219.25	23.94	194.33	15.32	203.93	206.39
1976	94.29	67.97	13.84	2.51	9.84	0.08	222.12	28.30	193.11	15.94	206.18	207.62
1977 p	96.79	69.48	14.09	1.73	10.71	0.11	226.99	30.71	195.10	16.26	210.73	213.19
Per cent change	+ 2.7	+ 2.2	+ 6.1	− 31.1	+ 8.8	+ 37.5	+ 2.2	+ 8.5	+ 1.0	+ 2.0	+ 2.2	+ 2.7
1976 Dec*	11.58	8.49	1.82	0.16	1.09	0.01	27.22	3.14	23.97	1.88	25.34	25.36
1977 Jan	9.56	6.94	1.58	0.13	0.89	0.01	22.31	2.57	19.62	1.53	20.78	20.98
Feb	9.07	6.76	1.17	0.13	0.98	0.02	21.30	2.81	18.40	1.49	19.81	19.82
Total	30.21	22.19	4.57	0.42	2.96	0.04	70.83	8.52	61.99	4.90	65.93	66.16
1977 Dec*	10.56	7.34	1.77	0.24	1.19	0.01	24.75	3.38	21.26	1.73	23.02	23.28
1978 Jan	9.24	6.55	1.47	0.23	0.97	0.01	21.78	2.76	18.94	1.49	20.29	20.61
Feb p	9.53	6.73	1.57	0.15	1.06	0.01	22.53	2.99	19.46	1.52	21.01	21.31
Total	29.33	20.62	4.81	0.62	3.22	0.03	69.06	9.13	59.66	4.74	64.32	65.20
Per cent change	− 2.9	− 7.1	+ 5.3	+ 47.6	+ 8.8	− 25.0	− 2.5	+ 7.2	− 3.8	− 3.3	− 2.4	− 1.5

1. Including coke. 2. Including quantities used in the production of steam for sale. 3. Including oil used in gas turbine and diesel plant and for lighting up coal fired boilers. 4. Including generation by gas turbine, diesel and hydro-electric plant. 5. Used on works and for pumping at pumped storage stations. 6. Includes net imports and purchases from outside sources mainly UKAEA and British Nuclear Fuels Ltd. The England and Wales figures include net exchanges with Scotland.

TABLE 10. Sales of electricity by the public supply system

GWh

	Total	Iron and steel industry	Other industries	Domestic	Other ¹
1972	210,417	10,774	68,967	86,889	43,787
1973	225,267	11,646	75,327	91,299	46,995
1974	218,552	11,292	70,967	92,626	43,667
1975	217,924	11,164	70,854	89,214	46,692
1976	220,841	12,607	74,986	85,117	48,131
1977 p	225,660	11,777	77,397	85,900	50,586
Per cent change	+2.2	-6.6	+3.2	+0.9	+5.1
1975 4th quarter	59,498	2,922	18,838	24,545	13,193
1976 1st quarter	66,235	3,208	19,559	29,089	14,379
2nd quarter	48,537	3,071	17,910	17,148	10,408
3rd quarter	43,112	2,875	17,314	13,584	9,339
4th quarter	62,957	3,453	20,203	25,296	14,005
1977 1st quarter p	67,165	3,268	20,445	28,488	14,964
2nd quarter p	52,346	3,050 ²	19,064 ²	18,686	11,546
3rd quarter p	46,030	2,645 ²	18,154 ²	14,966	10,265
4th quarter p	60,119	2,814 ²	19,734 ²	23,760	13,811
Per cent change	-4.5	-18.5	-2.3	-6.1	-1.4

1. Mainly commerce, public administration and agriculture. 2. Contains a small degree of estimation.

Petroleum

TABLE 11. Production, arrivals and shipments¹

Thousand tonnes

	Crude Petroleum						Petroleum products				
	Gross ² Indigenous Production	Supply				Arrivals ^{4,5}	Shipments ^{4,5}	Arrivals ⁴	Shipments ⁴	Net Arrivals	Bunkers ⁶
		Total	Indigenous ²	Net arrivals	Other ³						
1972	333	105,641	226	+104,148	1,267	107,706	3,558	20,440	15,775	+4,665	5,225
1973	373	114,032	235	+112,237	1,560	115,472	3,235	17,808	16,681	+1,127	5,499
1974	410	113,478	250	+111,418	1,810	112,822	1,404	14,256	14,396	-140	4,759
1975	1,564	92,273	1,156	+89,842	1,275	91,366	1,524	12,461	13,664	-1,203	3,444
1976	12,036	98,384	11,511	+86,181	692	90,466	4,285	10,422	15,726	-5,304	3,569
1977 p	37,879	92,260	37,540	+54,038	682	70,697	16,659	12,716	13,928	-1,212	2,829
Per cent change	(+)	-6.2	(+)	-37.3	-1.4	-21.9	(+)	+22.0	-11.4	(-)	-20.7
1976 Dec	1,989	8,995	1,821	+7,156	18	7,855	699	1,028	1,544	-516	328
1977 Jan	2,236	7,694	2,083	+5,640	-29	6,463	823	1,233	1,253	-20	248
Feb	2,410	7,777	2,373	+5,389	15	6,289	900	944	1,278	-334	253
Total	6,635	24,466	6,277	+18,185	4	20,607	2,422	3,205	4,075	-870	829
1977 Dec	3,587	8,289	3,381	+4,771	137	6,167	1,396	1,597	880	+717	225
1978 Jan	3,723	8,243	3,628	+4,553	62	6,052	1,499	1,115	849	+266	215
Feb p	3,612	8,278	3,519	+4,665	94	6,121	1,456	1,129	696	+433	200
Total	10,922	24,810	10,528	+13,989	293	18,340	4,351	3,841	2,425	+1,416	640
Per cent change	+64.6	+1.4	+67.7	-23.1	(+)	-11.0	+79.6	+19.9	-40.5	(+)	-22.8

1. Calendar months. 2. Including natural gas liquids (condensates). 3. Mainly recycled products. 4. Foreign trade as recorded by the Petroleum Industry and may differ from figures published in Overseas Trade Statistics. 5. Including process (partly refined) oils. 6. International bunkers.

TABLE 12. Refinery throughput and output of petroleum products¹

Thousand tonnes

	Through- put of crude and process oils	Refinery use		Total output of petrol- eum prod- ucts ²	Gases		Naphtha (LDF)	Motor spirit	Kerosene		Gas/ diesel oil	Fuel oil	Lub- cating oils	Bitumen
					Butane and propane	Other petro- leum			Aviation turbine fuel	Burning oil ³				
1972	106,980	6,420	1,192	99,368	1,463	369	5,728	13,632	4,180	2,649	25,536	41,002	1,333	2,004
1973	114,338	7,053	1,331	105,954	1,655	394	6,607	14,842	4,550	2,717	27,853	42,026	1,477	2,225
1974	111,217	6,946	1,211	103,060	1,602	272	6,448	14,520	4,475	2,564	27,641	40,022	1,455	2,129
1975	93,579	6,031	901	86,647	1,447	151	3,968	13,940	3,959	2,299	23,324	32,711	1,141	2,099
1976	97,784	6,342	1,158	90,284	1,575	158	4,583	15,232	4,163	2,458	24,198	32,696	1,310	1,897
1977 p	93,615	6,238	1,039	86,338	1,539	142	4,488	14,805	4,004	2,462	23,476	30,481	1,380	1,882
Per cent change	-4.3	-1.6	-10.3	-4.4	-2.3	-10.1	-2.1	-2.8	-3.8	+0.2	-3.0	-6.8	+5.3	-0.8
1976 Dec	8,833	561	184	8,088	151	13	485	1,298	292	292	2,105	3,081	120	108
1977 Jan	8,145	536	93	7,516	131	13	403	1,153	233	301	2,001	2,899	116	97
Feb	7,982	470	92	7,420	122	9	398	1,075	289	257	2,001	2,890	118	122
Total	24,960	1,567	369	23,024	404	35	1286	3,526	814	850	6,107	8,870	354	327
1977 Dec	8,617	566	107	7,944	154	15	419	1,332	302	303	2,102	2,922	120	133
1978 Jan	8,391	574	56	7,761	146	11	421	1,287	354	336	2,080	2,816	85	112
Feb p	7,527	515	137	6,875	127	12	370	1,149	341	266	1,897	2,432	67	102
Total	24,535	1,655	300	22,580	427	38	1,210	3,768	997	905	6,079	8,170	272	347
Per cent change	-1.7	+5.7	-18.8	-1.9	+5.6	+11.9	-5.9	+6.9	+22.6	+6.4	-0.5	-7.9	-23.0	+5.9

1. Calendar months. 2. Including output of products not shown separately, namely, aviation spirit, wide-cut gasoline, industrial and white spirits, paraffin wax and miscellaneous products. 3. Including vaporising oil.

TABLE 13. Deliveries of petroleum products for inland consumption¹

Thousand tonnes

	Total ^{2,3}	Butane ⁴ and propane	Naphtha (LDF) ⁵	Motor spirit	Kerosene				Gas/diesel oil		Fuel oil	Lubri- cating oils	Bitumen
					Aviation turbine fuel	Burning oil							
						Premier	Standard						
							Domestic	Other ⁶	Derv fuel	Other			
1972	97,700	1,455	7,391	15,899	3,929	778	1,663	528	5,254	15,113	41,307	1,113	2,203
1973	99,344	1,600	8,373	16,927	4,202	788	1,931	501	5,658	15,100	39,447	1,185	2,458
1974	92,342	1,414	7,700	16,484	3,690	603	1,770	436	5,518	13,581	36,810	1,045	2,241
1975	81,667	1,275	5,116	16,125	3,834	538	1,707	400	5,414	13,050	30,470	992	2,089
1976	80,291	1,330	5,404	16,879	3,989	576	1,686	372	5,594	12,984	27,825	1,011	1,867
1977 p	81,918	1,320	5,179	17,336	4,165	559	1,677	391	5,711	13,914	27,772	1,029	1,847
Per cent change	+2.0	-0.8	-4.2	+2.7	+4.4	-3.0	-0.5	-5.3	+2.1	+7.2	-0.2	+1.8	-1.1
1976 Dec	7,936	134	413	1,447	284	113	232	42	467	1,530	3,031	84	99
1977 Jan	7,773	131	528	1,203	296	105	205	40	420	1,573	2,996	81	98
Feb	7,073	125	380	1,260	277	73	188	37	453	1,410	2,584	84	124
Total	22,782	390	1,321	3,910	857	291	625	119	1,340	4,513	8,611	249	321
1977 Dec	7,955	124	405	1,532	312	82	203	44	487	1,513	2,949	80	118
1978 Jan	7,757	151	443	1,369	307	92	199	44	466	1,540	2,835	87	102
Feb p	7,217	125	452	1,189	248	96	201	41	436	1,493	2,640	78	106
Total	22,929	400	1,300	4,090	867	270	603	129	1,389	4,546	8,424	245	326
Per cent change	+0.6	+2.6	-1.5	+4.6	+1.2	-7.2	-3.4	+8.5	+3.7	+0.7	-2.2	-1.6	+1.5

1. Calendar months. 2. Including other petroleum gases, aviation spirit, wide-cut gasoline, industrial and white spirits, and paraffin wax. 3. Excluding refinery fuel (and miscellaneous products prior to 1978). 4. Including very small amounts for petro-chemicals. 5. Now mainly for petro-chemical feed-stock. 6. Including vaporising oil.

TABLE 14. Inland deliveries of petroleum products used for energy^{1, 2}

Thousand tonnes

	Total	Power ³ stations	Gas works	Iron and steel industry	Other industries	Transport ⁴	Domestic	Other ⁵
1972	87,788	19,039	2,249	5,044	21,899	27,152	3,485	8,920
1973	88,196	16,993	2,355	4,995	22,045	28,971	3,812	9,025
1974	81,547	17,240	1,339	4,019	19,695	27,930	3,378	7,946
1975	73,385	13,345	693	3,309	17,251	27,582	3,270	7,935
1976	71,473	10,441	366	3,128	17,487	28,599	3,269	8,183
1977 p	73,043	10,875	292	2,938	17,701	29,359	3,263	8,615
Per cent change	+2.2	+4.2	-20.1	-6.1	+1.2	+2.7	-0.2	+5.3
1976 Nov	6,471	914	25	301	1,722	2,323	330	856
Dec	7,295	1,260	30	284	1,843	2,391	473	1,014
1977 Jan	6,987	1,193	32	302	1,891	2,093	430	1,046
Total	20,753	3,367	87	887	5,456	6,807	1,233	2,916
1977 Nov	7,088	1,381	33	271	1,738	2,480	334	851
Dec	7,266	1,295	36	241	1,798	2,514	410	972
1978 Jan p	7,006	1,095	34	272	1,938	2,326	412	929
Total	21,360	3,771	103	784	5,474	7,320	1,156	2,752
Per cent change	+2.9	+12.0	+18.4	-11.6	+0.3	+7.5	-6.3	-5.6

1. Calendar months. 2. Excludes non-energy products and non-energy use of naphtha (LDF). 3. Public supply, railway and transport power stations. 4. Including fishing, coastal and inland shipping. 5. Mainly public administration, commerce and agriculture.

TABLE 15. Stocks of petroleum at end of month

	Held by oil companies ¹		Power stations ²
	Million tonnes	Estimated days' supply ³	Million tonnes
1977 Jan	20.6	81	0.90
Feb	20.1	83	0.97
Mar	19.4	87	0.81
1978 Jan	19.7	76	1.05
Feb	19.7	81	1.03
Mar p	18.0	80	1.03

1. Stocks of petroleum products plus the product equivalent of crude and process oils held at refineries, and products in the wholesale distribution system. 2. Fuel oil held at main oil burning stations in Great Britain. 3. Latest three months calculated on forecast deliveries for the ensuing months. Figures for earlier period calculated on actual deliveries.

APPROXIMATE CONVERSION FACTORS

(last digit rounded to nought or five)

To convert from one fuel to another, multiply by the factor shown

From \ To	Million tons coal equiv.	Million tonnes oil equiv.	Million therms	TWh electrical energy	TWh electricity generated
Million tons coal equivalent	1	1.65	0.00390	0.135 ¹	0.500 ²
Million tonnes oil equivalent	0.600	1	0.00235	0.0800 ¹	0.280 ²
Million therms	255	425	1	34.0	115
TWh electrical energy	7.45	12.5	0.0295	1	..
TWh electricity generated	2.00 ³	3.60 ³	0.00880 ³	..	1

1. The amount of fuel (average grade) equivalent to 1 TWh of energy.
2. The amount of primary fuel (power station grade) to generate 1 TWh.
3. The amount of electricity generated by one million units of fuel shown.
The *Digest of UK Energy Statistics 1976* gives more detailed factors.

SUPPLEMENTARY DATA

Electricity generated outside the public electricity supply system in Great Britain (¹)

GWh

	Total	Industry										Transport under-takings
		Total industry	Iron and steel	Engineering and other metal trades	Food drink and tobacco	Coal mining	Chemical and allied trades		Textiles, leather and clothing	Paper, printing and stationery	Other industries (including gas and water works)	
							Nuclear ² power stations	Others ³				
1972	20,727	20,034	2,587	1,320	409	323	4,098	7,408	458	2,786	645	693
1973	22,995	22,292	2,707	2,716	458	309	4,339	7,859	498	2,763	643	703
1974	22,588	21,939	2,180	3,139	521	251	4,222	7,904	450	2,598	674	649
1975	20,741	20,052	1,660	3,319	435	297	3,820	7,305	406	2,137	673	689
1976	21,978	21,288	1,706	3,362	496	269	3,736	8,398	423	2,249	649	690
1977 p	21,159	20,458	1,555	3,463	516	278	3,604	7,931	355	2,168	588	701
Per cent change	-3.7	-3.9	-8.9	+3.0	+4.0	+3.3	-3.5	-5.6	-16.1	-3.6	-9.4	+1.6
1975 4th quarter	5,526	5,347	411	819	197	79	1,075	1,899	98	589	180	179
1976 1st quarter	5,958	5,770	480	852	100	74	1,098	2,263	115	599	189	188
2nd quarter	5,252	5,083	409	856	78	63	834	2,019	105	567	152	169
3rd quarter	4,954	4,793	367	790	72	58	812	1,982	96	479	137	161
4th quarter	5,814	5,642	450	864	246	74	992	2,134	107	604	171	172
1977 1st quarter p	5,761	5,577	503	882	136	69	922	2,162	108	625	170	184
2nd quarter p	5,007	4,836	351	885	78	77	802	1,877	93	533	140	171
3rd quarter p	4,817	4,650	317	825	71	57	934	1,786	84	454	122	167
4th quarter p	5,574	5,395	384	871	231	75	946	2,106	70	556	156	179
Per cent change	-4.1	-4.4	-14.7	+0.8	-6.1	+1.4	-4.6	-1.3	-34.6	-7.9	-8.8	+4.1

1. Excludes electricity generated by commerce, public administration, etc. 2. Generated by UKAEA and British Nuclear Fuels Ltd. for the public electricity supply system. 3. Including production by the oil refining industry.